

CLAIMS

1. A method of screening or testing for candidate antifungal compounds that impair biotin protein
5 ligase 1 enzyme (BPL1) function, comprising:
a) providing fungal BPL1;
b) providing one or more candidate compounds;
c) contacting said BPL1 with said one or more candidate compounds; and
d) determining the interaction of the candidate compound with said BPL1.
- 10 2. A method according to claim 1 wherein the BPL1 comprises a fragment, a function-conservative variant, an active fragment or a fusion protein of BPL1.
3. A method according to any one of claims 1 or 2, wherein the fungal BPL1 is from fungus of
15 *Candida* or *Aspergillus* species.
4. A modified eukaryotic cell(s) wherein the cell(s) expresses fungal BPL1 under the control of a heterologous promoter.
- 20 5. The cell according to claim 4 which is a *C. albicans* cell.
6. The cell according to any one of claims 4 or 5, wherein the BPL1 is homologous.
7. The cell according to any one of claims 4 to 5, wherein the BPL1 comprises a fragment, a
25 function-conservative variant, an active fragment or a fusion protein of BPL1.
8. A method of screening or testing for candidate antifungal compounds that impair biotin protein
ligase 1 enzyme (BPL1) function, comprising:
a) providing fungal BPL1 in a eukaryotic cell(s) as defined in any one of claims 4 to 7;
30 b) providing one or more candidate compounds;
c) contacting said eukaryotic cell(s) with said one or more candidate compounds; and
d) determining the interaction of the candidate compound with said BPL1 by assessing the effect on
growth or viability of said cells.
- 35 9. A compound identified by the method of claims 1, 2, 3 or 8, which impairs BPL1 function for use
as an antifungal compound.
10. A pharmaceutical composition comprising a BPL1 inhibitor and a pharmaceutically acceptable
carrier.
- 40 11. *Candida* or *Aspergillus* BPL1 as a specific target for antifungal compounds.
12. The use of a BPL1 inhibitor, in the manufacture of a medicament for the treatment of fungal
45 infections.

13. The use of a BPL1 inhibitor, in the manufacture of a medicament for the treatment of fungal infections in a subject who is immunosuppressed.
14. The use according to claim 12 or 13 wherein the fungal infection is a topical, mucosal or systemic
5 fungal infection.
15. The use according to claim 14 wherein the topical or mucosal fungal infection is caused by species of *Candida* or the systemic fungal infection is caused by species of *Candida* or *Aspergillus*.
- 10 16. The use according to any one of claims 12 to 15 wherein said compound impairs fungal BPL1 function to a greater extent than host BPL1 function.